

SMD Schottky Barrier Rectifiers



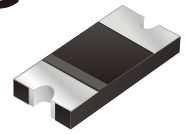
SMD Diodes Specialist

CDBAF5817-G Thru CDBAF5819-G

Reverse Voltage: 20 - 40 Volts

Forward Current: 1A or 3A

RoHS Device

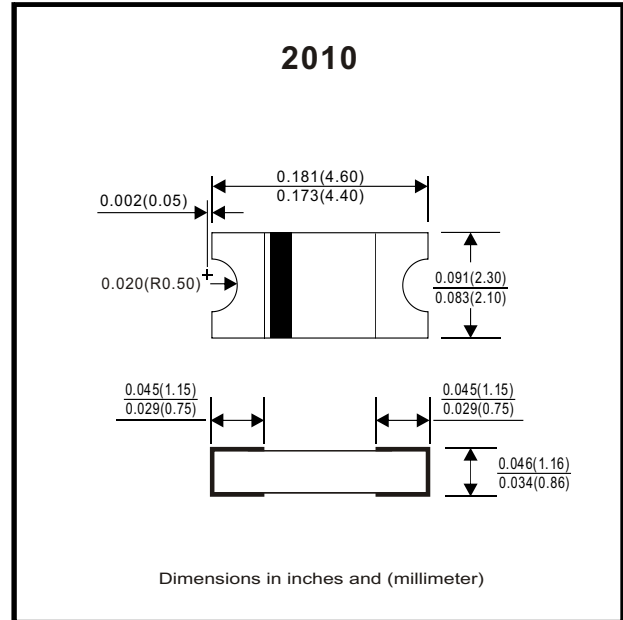


Features

- For surface mounted applications.
- Metal to silicon rectifier, majority carrier conduction.
- Plastic package has Underwriters Lab, flammability classification 94V-0.
- High surge capacity.
- High current capability, low forward voltage.

Mechanical data

- Case: Packed with FRP substrate and epoxy underfilled.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Weight: 0.02 gram (approx.).



Maximum Ratings (at TA=25°C unless otherwise noted)

Parameter	Symbol	CDBAF5817-G	CDBAF5818-G	CDBAF5819-G	Unit
Max. Repetitive Peak Reverse Voltage	V _{RRM}	20	30	40	V
Max. DC Blocking Voltage	V _{DC}	20	30	40	V
Max. RMS Voltage	V _{RMS}	14	21	28	V
Peak Surge Forward Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I _{FSM}	30			A
Max. Average Forward Current	I _O	1			A
Typical Thermal Resistance (Note 3)	R _{θJA}	80			°C/W
Storage Temperature	T _{STG}	-50 to +125			°C
Max. Operating Junction Temperature	T _J	+125			°C

Electrical Characteristics (at TA=25°C unless otherwise noted)

Parameter	Symbol	CDBAF5817-G	CDBAF5818-G	CDBAF5819-G	Unit
Max. Forward Voltage at 1.0 A (Note 1) at 3.0 A (Note 1)	V _F	0.45 0.75	0.550 0.875	0.60 0.90	V
Max. DC Reverse Current at Rated DC Blocking Voltage T _J = 25°C T _J = 100°C	I _R	0.5 10			mA
Typical Junction Capacitance (Note 2)	C _J	110			pF

Notes: (1) Pulse test width PW = 300usec, 1% duty cycle.
 (2) Measured at 1.0 Mhz and applied reverse voltage of 4.0 Volts.
 (3) Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (CDBAF5817-G Thru CDBAF5819-G)

Fig. 1 - Forward characteristics

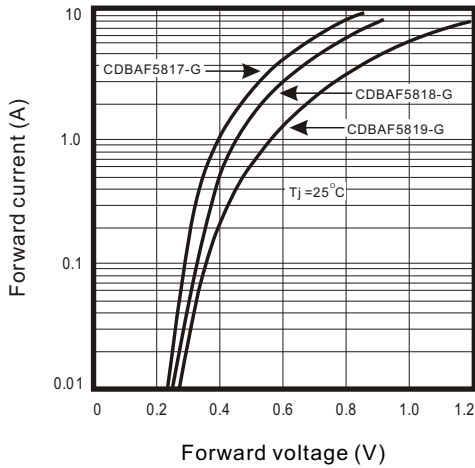


Fig. 2 - Reverse characteristics

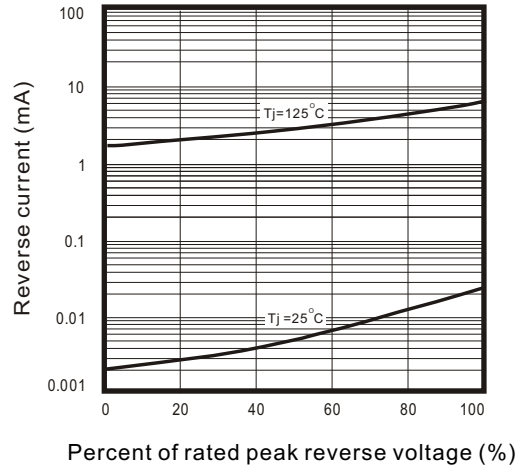


Fig.3 - Capacitance between terminals characteristics

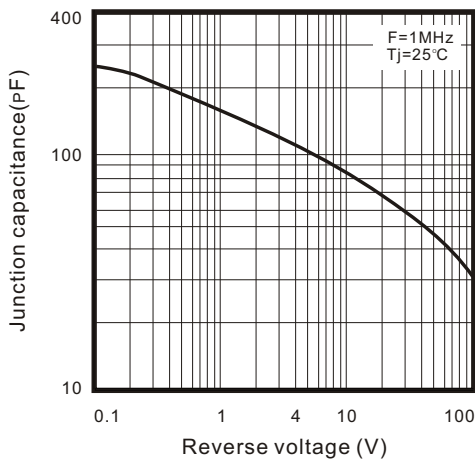


Fig.4 - Current derating curve

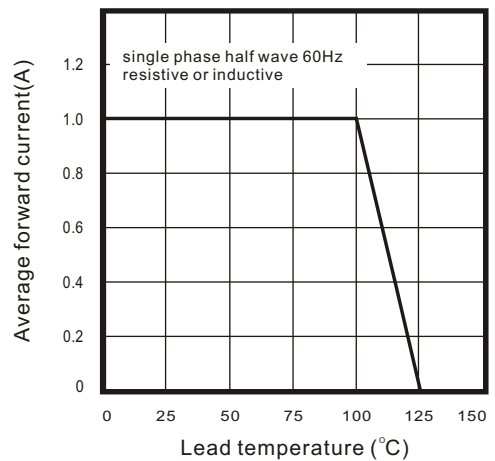


Fig.5 - Max. Non repetitive peak forward surge current

